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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,212	09/09/2003	John Lawson	US-2003-010	2720

7590 06/07/2004

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EXAMINER


HASAN, MOHAMMED A

ART UNIT	PAPER NUMBER
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2873

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/658,212	LAWSON ET AL.	
	Examiner	Art Unit	
	Mohammed Hasan	2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1- 24, 26 - 30 is/are rejected.
- 7) ☒ Claim(s) 25 and 31 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/9/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Oath/Declaration

1. Oath and declaration filed on 9/9/2003 is accepted

Information Disclosure Statement

2. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 9/9/2003 have all been considered and made of record (note the attached copy of form PTO – 1449).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1- 7 are rejected under 35 U.S.C. 102(b) as being anticipated by S.N. Howell (2,978,956).

Regarding claim 1, S.N. Howell discloses, a dual lens having an aperture comprising: a first lens portion (5) formed of a first optical material occupying a first

portion of the aperture of the dual lens and a second lens portion (6) formed of a second optical material occupying a second portion of the aperture of the dual lens column 1, lines 15 – 58).

Regarding claim 2, S.N. Howell discloses, the first portion (5) of the aperture and the second portion of the aperture are circular (column 1, lines 43 – 50).

Regarding claim 3, S.N. Howell discloses, the first portion (5) of the aperture and the second portion of the aperture are concentric (column 1, lines 55 – 57, column 2, lines 25 – 45).

Regarding claim 4, S.N. Howell discloses, wherein the first optical material (5) transmits at least a first band of optical wavelengths and the second optical material (6) transmits at least a second band of optical wavelengths (column 1, lines 15 – 25).

Regarding claim 5, S.N. Howell discloses, wherein the first band of optical wavelengths is an infrared band and the second band of optical wavelengths is a visible band (column 1, lines 26 – 30).

Regarding claim 6, S.N. Howell discloses, the first portion (5) of the aperture and the second portion of the aperture are circular (column 1, lines 43 – 50).

Regarding claim 7, S.N. Howell discloses, the first portion (5) of the aperture and the second portion of the aperture are concentric (column 1, lines 55 - 57).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9 – 24, and 28 – 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Owen (5,497,266).

Regarding claim 9, Owen discloses (refer to figure 2) a dual optical system comprising: a first optical system comprising a first set of lenses (lens 50 and lens 46) wherein a portion of the first set of lenses comprises cut-out sub –apertures (30') and a second optical subsystem comprising a second set of lenses (lenses 44) wherein a portion of the second set of lenses are positioned within the sub-apertures (30') of the first set of lenses (column 4, lines 11 – 67, column 5, lines 1 – 13).

Regarding claim 10, Owen discloses, wherein the first optical subsystem transmits at least a first band of optical wavelengths (34_i) the second optical subsystem transmits at least a second band of optical wavelengths (34_v) (column 4, lines 40 – 41, line 64) .

Regarding claim 11, Owen discloses (refer to figures 1 and 2), wherein the first set of lenses (lens 50 and lens 46), the second set of lenses (lenses 44), and the sub-apertures are circular.

Regarding claim 12, Owen discloses, wherein a portion of the first set of lenses (lens 46) and a portion of the second set of lenses (lens 44) are disposed along a common optical axis (as shown in figure 2).

Regarding claim 13, Owen discloses, wherein the first optical subsystem is capable of producing a first image and the second optical subsystem is capable of producing a second image (column 2, lines 50 – 65).

Regarding claim 14, Owen discloses, wherein the first optical subsystem (lenses 50 and 46) comprises a first subsystem focus group, the second optical subsystem comprises a second subsystem focus group (lens 44) and wherein the dual optical system further comprises a first focus mechanism, attached to and capable of moving the first and second sub-system focus group (column 4, lines 25 – 56).

Regarding claim 15, Owen discloses, wherein the first band of optical wavelengths is an infrared band and the second band of optical wavelengths is a visible band (column 2, lines 35 – 43).

Regarding claim 16, Owen discloses, wherein the first optical subsystem (lenses 50 and 46) comprises a first subsystem focus group, the second optical subsystem comprises a second subsystem focus group (lens 44) and wherein the dual optical system further comprises a first focus mechanism, attached to and capable of moving the first and second sub-system focus group (column 4, lines 25 – 56).

Regarding claim 17, Owen discloses, wherein the first band of optical wavelengths is an infrared band and the second band of optical wavelengths is a visible band (column 2, lines 35 – 43).

Regarding claim 18, Owen discloses, a focus element comprises : a first lens element (50) capable of refracting light of a first band of optical wavelengths and having an aperture cut through it and a second lens (44) capable of refracting light of a second band of optical wavelengths fixed in the aperture (30') of the first lens and focus mechanism attached to the focus element capable of moving the focus element (column 4, lines 25 – 56).

Regarding claim 19, Owen discloses, wherein the first optical subsystem (lenses 50 and 46) is capable of producing a first image formed of light from the first optical wavelength band and the second optical subsystem (lenses 44) is capable of producing a second image from the light of the second optical wavelengths band, and wherein motion of the focus element adjusts the focus of both the first image and the second image (column 4, lines 25 – 56).

Regarding claim 20, Owen discloses, wherein the optical system is receptive of light along a common light path and further comprising : a first output light path, a second output light path and a fold element (36) capable of directing a portion of light of the first optical band along a first output light path and wherein light of the second optical band exits along a second output light path (column 4, lines 25 – 56, column 5, lines 1 - 10).

Regarding claim 21, Owen discloses, wherein the first band of optical wavelengths is an infrared band and the second band of optical wavelengths is a visible band (column 2, lines 35 – 43).

Regarding claim 22, Owen discloses, a first recording means for recording the first image positioned in the first outpath and a second recording means for recoding the second image positioned in the second output path (column 4, lines 42 – 54).

Regarding claim 23, Owen discloses, further comprising display means, for display the first image and or the second image to an operator (column 7, lines 60 – 67).

Regarding claim 24, Owen discloses, wherein the first band of optical wavelengths is an infrared band and the second band of optical wavelengths is a visible band (column 2, lines 35 – 43).

Regarding claim 28, Owen discloses, wherein the first optical subsystem (lenses 50 and 46) is capable of producing a first image formed of light from the first optical wavelength band (34_i) the second optical subsystem (lenses 44) is capable of producing a second image from the light of the second optical wavelengths band (34_v) and wherein motion of the focus element adjusts the focus of both the first image and the second image simultaneously (column 4, lines 25 – 56).

Regarding claim 29, Owen discloses, a dual band lens having a visible optical path (34_v) and an infrared optical path (34_i) comprising : a dual band focus group comprising an annular first infrared lens element having infrared lens element having an inner radius and a circular first visible lens element located within the inner radius of the annular infrared lens element and a fixed infrared imaging group comprising a plurality of fixed infrared lens elements (44) and a fixed imaging group comprising a plurality of fixed visible lens elements (lenses 50 and 46), wherein the dual band focus group and the fixed infrared imaging group are placed along the infrared optical path and wherein the dual and focus group and the fixed visible imaging group are placed along the visible optical path (column 4, lines 25 – 56).

Regarding claim 30, Owen discloses, a portion of the plurality of fixed infrared lens elements (44) comprise cut-out sub-apertures (30') and wherein the a portion of the visible optical path passes through the cut out sub-apertures (column 4, lines 11 – 67).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over S.N. Howell (2,978,956) in view of Reddersen et al (5,565,668).

Regarding claim 8, as applied to claim 1, S.N. Howell discloses all of the claimed limitations except the second portion of the aperture is defined by a hole bored through the first optical material and a portion of the second optical material is disposed within the hole. However, Reddersen discloses (refer to figures 2 and 4) a multifocal lens (50) having forming a hole in the first lens element and securing the second lens element (column 4, lines 8 – 31).

It would have been to one of ordinary skill in the art at the time the invention was made to provide a multifocal lens 50 with a hole in the first lens element in to the S.N. Howell multiple element lens configuration for the purpose of variable range of focal distances as taught by Reddersen et al (column 2, lines 11 – 12).

Regarding claim 26, S.N. Howell discloses, a dual optical band lens comprising a first lens element (5) and a second lens element (6) (column 1, lines 43 – 55). S.N. Howell discloses all of the claimed limitations except forming a hole in the first lens

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element and securing the second lens elements within the hole in the first lens element. However, Reddersen discloses (refer to figures 2 and 4) a multifocal lens (50) having forming a hole in the first lens element and securing the second lens element (column 4, lines 8 – 31).

It would have been to one of ordinary skill in the art at the time the invention was made to provide a multifocal lens 50 with a hole in the first lens element in to the S.N. Howell multiple element lens configuration for the purpose of variable range of focal distances as taught by Reddersen et al (column 2, lines 11 – 12).

Regarding claim 27, S.N. Howell discloses, a dual optical band lens comprising a first lens element (5) and a second lens element (6) (column 1, lines 43 – 55). S.N. Howell discloses all of the claimed limitations except forming a hole in the first lens element and securing the second lens elements within the hole in the first lens element. However, Reddersen discloses (refer to figures 2 and 4) a multifocal lens (50) having forming a hole in the first lens element and securing the second lens element (column 4, lines 8 – 31).

It would have been to one of ordinary skill in the art at the time the invention was made to provide a multifocal lens 50 with a hole in the first lens element in to the S.N. Howell multiple element lens configuration for the purpose of variable range of focal distances as taught by Reddersen et al (column 2, lines 11 – 12).

Allowable Subject Matter

5. Claims 25 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to show the first optical subsystem further comprises a first variator and a first compensator group and the second optical subsystem further comprises a second variator group in contact with the first variator group and second compensator group in contact with the first compensator group and the dual optical system further comprises a zoom mechanism capable of moving the first and the second variator groups and the first and second compensator groups.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art

Gupta (5,080,472) discloses a multifocal optical lens.

Wallace et al (5,329,347) discloses multifunction coaxial objective system for a rangefinder.

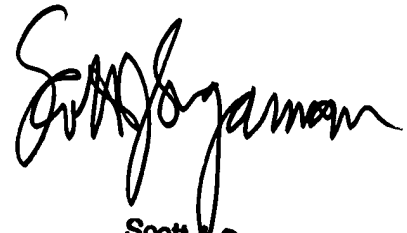
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (571) 272-2331. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272- 2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MH
MAY 27, 2004


Scott J. Sugarman
Primary Examiner